What is claimed is;

1. An optical film: comprising

an optical compensation layer (2) showing refractive index anisotropy satisfying a relationship of $nx_2 \fallingdotseq ny_2 > nz_2$,

when a direction where an in-plane refractive index gives a maximum is defined as X-axis, a direction perpendicular to X-axis as Y-axis, a thickness direction as Z-axis, and when refractive indexes in each axial direction are defined as nx_2, ny_2 and nz_2, respectively,

on one side of a base material film (1) in which each of refractive index differences represented with $|nx_1 - ny_1|$, $|nx_1 - nz_1|$ and $|nz_1 - ny_1|$ has values of 0.0006 or less, respectively,

when a direction where a refractive index in a film plane gives maximum is defined as X-axis, a direction perpendicular to X-axis as Y-axis, a thickness direction of the film as Z-axis, and when refractive indexes in each axial direction are defined as nx_1, ny_1, and nz_1 respectively.

2. The optical film according to Claim 1, wherein a thickness of the optical compensation layer (2) is 10 μm or less.

3. The optical film according to Claim 1, wherein the optical compensation layer (2) is formed of a coating of an organic material.

4. The optical film according to Claim 1, wherein the optical compensation layer (2) is a cholesteric liquid crystal layer.

5.A method for producing the optical film according to Claim 1, comprising the steps of:

coating a material to form an optical compensation layer (2) showing refractive index anisotropy satisfying a relationship of $nx_2 \fallingdotseq ny_2 > nz_2$, when a direction where an in-plane refractive index gives a maximum is defined as X-axis, a direction perpendicular to X-axis as Y-axis, a thickness direction as Z-axis, and when refractive indexes in each axial direction are defined as nx_2, ny_2 and nz_2, respectively, on one side of a base material film (1) in which each of refractive index differences represented with $|nx_1 - ny_1|$, $|nx_1 - nz_1|$, and $|nz_1 - ny_1|$ has values of 0.0006 or less, respectively, when a direction where a refractive index in a film plane gives a maximum is defined as X-axis, a direction perpendicular to X-axis as Y-axis, a thickness direction of the film as Z-axis, and when refractive indexes in each axial direction are defined as nx_1, ny_1, and nz_1 respectively; and

orienting the optical compensation layer (2).

6. The method for producing the optical film according to Claim 5, wherein a thickness of the optical compensation layer (2) is 10 μm or less.

7. The method for producing the optical film according to Claim 5, wherein the optical compensation layer (2) is formed of a coating of an organic material.

8. The method for producing the optical film according to Claim 5, wherein the optical compensation layer (2) is a cholesteric liquid crystal layer.

9. An optical film comprising an at least one layer of other optical element further laminated onto the optical film according to Claim 1.

10. The optical film according to Claim 9, wherein the other optical element is a polarizer, and the polarizer is laminated on a base material film (1) side.

11. An image display, wherein the optical film according to Claim 1 or Claim 9 is laminated thereon.